

Capability Statement

Institution: **Saint Xavier University**

DUNS No: **072349004**

Cage Code: **42MF6**

NAICS ID: **611310**

SIC: **8221**

Federal EIN No: **36-2177133**

Certificates, Registrations, Accreditations:

Higher Learning Commission; NASM; NCATE; AACSB; CCNE; AACN; IACN; NLN; Title 38, US Code; Council on Academic Accreditation in Audiology; Speech-Language Pathology of ASHA

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Overview

Saint Xavier University was founded in Chicago by the Sisters of Mercy in 1846, holding the distinctions of being Chicago's first Catholic university as well as the first Mercy institution of higher learning in the world. Initially serving as a higher education institution for women and the poor, today the four-year, private Catholic institution serves a diverse population of persons who seek a Mercy education that prepares them to become successful, productive and compassionate members of society.

Research Capabilities and Facilities

Biology

PCR Cyclers (96 well), prep centrifuge, microcentrifuges, two ultra-low freezers, tissue culture hood, CO₂ incubator, fluorescence document camera, fluorescence microscope, greenhouse, cryostat, incubators, environmental chambers, spectrophotometers, UV/vis spectrophotometers, DNA and protein gel electrophoresis, Anatomage Table, nanopore DNA/RNA sequencing units

Chemistry

- Liquid and Gas Chromatography Mass Spectroscopy: molecular level determination of structure of analytes such as drugs, pesticides, pharmaceuticals, contaminants, forensic metabolites, etc.
- Atomic Absorption Spectroscopy: elemental analysis to identify and quantify a wide variety of metals in foods, cosmetics, industrial products, alloys, etc.
- Ion Chromatography: Analysis of aqueous solutions to identify and quantify soluble anion and cation species in water, wastewater, mouthwashes, etc.
- Nuclear Magnetic Resonance: Determination of Proton and Carbon types within molecules at 60mHZ for identification and research.

- Ultraviolet-Visible Spectroscopy: Analysis and quantification of molecules and mixtures of chemicals that absorb light in the 200-800nm light range. Used for molecular and time-based kinetic research.
- Spectro fluorometry: Analysis with the capability of varying excitation and emission wavelengths to measure fluorescence. Used for molecular research, forensics, development of ELISA and similar test methods.
- Micro Plate Reader: Used for the development of methods and technology for kinetics and thermodynamics.
- Infrastructure: Academic and research lab spaces adapted for use in chemistry (exhaust hoods, purified water, natural gas, vacuum, glassware, general lab equipment).

Computer Science

- Public-facing and private virtualized web servers, protected by firewalls
- Cisco routers for network research
- Computer science education research
- Mobile app development
- Virtual reality equipment for virtual worlds and virtual reality research
- Video game design and development research
- One classroom/lab with 20 general-purpose single-user workstations
- One classroom with 20 general-purpose single-user workstations with a dedicated network

Past Performance

Grants

U.S. Department of Education Title V Developing Hispanic-Serving Institutions (DHSI) Program grant to provide a comprehensive suite of student academic and career supports for Latinx and low-income students, including first-year enhancements, second-year engagement strategies, targeted advising, financial literacy and high-impact practices.

U.S. Department of Education TRIO Student Support Services Program grant to provide opportunities for academic development, assist students with basic college requirements, and motivate students toward the successful completion of postsecondary education.

National Science Foundation (NSF) Improving Undergraduate STEM Education: Hispanic-Serving Institutions (IUSE:HSI) Program grant to build sense of belonging for STEM students and increase academic outcomes; connect STEM students to internship and work study opportunities; and provide additional high-impact learning experiences in chemistry and biology.

The Illinois Board of Higher Education Illinois Cooperative Work Study Program grant to connect students with internship and externship opportunities through external employers across academic disciplines.